

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for December, 1896, is based on 2,748 reports from stations occupied by regular and voluntary observers, classified as follows: 137 from Weather Bureau stations; 33 from post surgeons, received through the Surgeon General, U. S. Army; 2,435 from voluntary observers; 96 received through the Southern Pacific Railway Company; 14 from Life-Saving stations, received through the Superintendent United States Life-Saving Service; 33 from Canadian stations; 1 from Hawaii; 30 from Mexican stations. International simultaneous observations are received from a few stations and used together with trustworthy newspaper extracts and special reports.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by Mr. A. J. Henry, Chief of the Division of Records and Meteorological Data. Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada, Mr. Curtis J. Lyons, Meteorologist to the Government Survey, Honolulu, and Dr. Mariano Bárcena, Director of the Central Meteorological Observatory of Mexico.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

The first half of the month was characterized by rather more than the usual amount of clear sky and pleasant weather; the latter half had the usual average number of storms, which mostly passed along the borders of our territory, leaving the month as a whole characterized by pleasant weather except in Washington and Oregon. The temperatures were generally above the normal, and the accumulated temperatures continued to show a large excess in the Rocky Mountain Plateau Region, the Lake Region, the Gulf States, and the intermediate districts. The precipitation was in excess in Washington and Oregon, but deficient in the Middle Atlantic and New England States.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers, not reduced to standard gravity, and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart IV. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

The mean pressures during the current month were high in the Rocky Mountain Plateau Region, the southern portion of the Appalachian range, and the Gulf States generally. They were low at the extreme northern border of our weather map and lowest from the State of Washington westward and from Newfoundland eastward.

The highest pressures were: In Canada, Ottawa, 30.21; Kingston and Port Stanley, 30.18; Toronto and White River, 30.17; Montreal, 30.16; in the United States, Idaho Falls, 30.32; Salt Lake City, 30.31; Chattanooga, 30.29; Lander and Knoxville, 30.28; Parkersburg, Lynchburg, and Atlanta, 30.26.

The lowest were: In Canada, St. Johns, N. F., 29.82; Prince Albert, 29.90; Calgary, 29.91; Victoria, 29.92; Edmonston, 29.95; Medicine Hat and Sydney, 29.96; in the United States, Tatoosh Island, 29.91; Fort Canby, 29.95; Seattle, 29.97; Havre, 29.99.

As compared with the normal for December, the mean pressure was in excess in the Lake Region and New England and to a less extent in the Rocky Mountain Region and Gulf States. It was deficient in the Missouri Valley, Washington, Oregon, and the northwestern Canadian Provinces. The greatest excesses were: at Canadian stations, Kingston, Halifax, Montreal, and Saugeen, 0.13; Rockliffe and White River, 0.12; Quebec, Toronto, Port Stanley, and Parry Sound, 0.11; in the United States, Northfield and Buffalo, 0.13; Oswego, Albany, Erie, Toledo, Detroit, Sault Ste. Marie, and Green Bay, 0.12. The greatest deficits were: Canada, Calgary, 0.21; Medicine Hat, 0.14; Swift Current, 0.13; United States, Havre, 0.16; Miles City, 0.12; Rapid City, 0.10.

As compared with the preceding month of November, the pressures reduced to sea level show a rise in the Lake Region and especially in the Rocky Mountain Plateau Region; but a fall in Oregon, Washington, the Missouri Valley, and the Atlantic Coast, and especially in the Canadian Maritime and Northwest Provinces. The greatest rises were: El Paso, 0.15; Idaho Falls, 0.14; Salt Lake City, 0.13; Corpus Christi, Phoenix, Yuma, and Santa Fe, 0.12. The greatest falls were: Edmonton, 0.41; Calgary, 0.35; Battleford, 0.34; Prince Albert, Swift Current, and Banff, 0.29; Havre, 0.28; St. Johns, N. F., and Spences Bridge, 0.21.

AREAS OF HIGH AND LOW PRESSURE.

By Prof. H. A. HAZEN.

During the month eight high areas and twelve low areas have merited attention. Charts II and I give the tracks of these conditions, together with the position of each at 8 a. m.